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Usmanov

Master of the Faculty of Plant Protection, Tashkent State Agrarian University, Uzbekistan

Kimsanboev Khojamurod Khamrakulovich

Faculty of Plant Protection, Ph.D. Professor, Tashkent State Agrarian University, Uzbekistan

Shamsi Esanbayev

Biological Sciences, Associate docent, Tashkent State Agrarian University, Uzbekistan

Rahmonov Ahliddin Habibulloevich

Doctoral student of the Faculty of Plant Protection, Tashkent State Agrarian University, Uzbekistan

Corresponding Author:

Usmanov

Master of the Faculty of Plant Protection, Tashkent State Agrarian University, Uzbekistan

Pests in pomegranate biocenosis and their biocology and levels

Usmanov, Kimsanboev Khojamurod Khamrakulovich, Shamsi Esanbayev and Rahmonov Ahliddin Habibulloevich

Abstract

The main insect pests vary in different geographical areas. Studies have shown that the pomegranate biocenosis is dominated by pests such as *Euzophera punicaella* Mooze, *Aphis punicae* Theob, *Pseudococcus komstoci* Kuw, common spider (*Tetranychus urticae* Koch) damage was detected. Pomegranate juice gives 10-12 generations of pomegranates a year. These pests mainly damage pomegranate orchards in Tashkent region.

Keywords: Pest, *Euzophera penicaella* Mooze plant lice, bark beetle, egg, pomegranate, spider

Introduction

Pomegranate tree and its fruit contain various pests. The main pest insects are diverse in different geographical areas. While some pests cause major problems in one area, they are harmless or non-existent in other areas. However, some pests, insects and diseases are found in most areas where pomegranate is grown. The main pests that damage the pomegranate stem and body are Pomegranate body rodents, Serajin bark beetle, Bark silkworm, Plant lice (aphids) and others. Plant lice (aphids) are common pests that cause serious problems in pomegranate orchards. Young pomegranate leaves are very prone to aphids attack. The most important of these fruit pests are fruit rodents, pomegranate fruit, pomegranate butterfly, and leaf-eating worms. Thrips and spider mites damage both the fruit and the tree (Bondarenko N.V. 1983) [1].

Objective: To study the biology and ecology of the main pests of pomegranate: Pomegranate sucking pest (*Aphis punicae* Theob), Comstock worm (*Pseudococcus komstoci* Kuw), Common spider (*Tetranychus urticae* Koch).

Plant lice (aphids). Scientific name of the pest: There are various species belonging to the family (Aphididae) - plant lice are pests that are common in pomegranate gardens and cause serious damage. It is an insect that feeds mainly on young twigs, leaves and sometimes flowers in the spring. By absorbing the sap of the tree, it weakens the trees, damages the flowers, reduces the yield and reduces its quality. (Figure 1.2).



Fig 1: The formation of dry mold on the leaves and fruits of lice juice

Unsimon kurt (Kamstok kurti) Pseudococcus. Scientific name of the pest: (*Pseudococcus comstocki* Kuw). Symptoms - nymphs and adult females feed on the juice of the leaves, flowers and fruits of the pomegranate tree, causing serious damage to them. As a result, the leaves turn yellow, fall off and the fruit softens. The leaves do not wrinkle like a virus. Dry mold coating can form in the sap that separates the worms. Damage may result in shedding of fruit. The pest stains the fruit and changes the structure of

the fruit peel (Fig. 3.4).

The spider. Scientific name of the pest: (*Brevipalpuslewisi*, *Aceriagranati* and *Tetranychus punicae*). Signs - glossy white-brown spots appear on the underside of leaves, and the increase of the pest gives a reddish tinge. The damaged leaves twist and slowly begin to shed. The damage starts from the fruit stalk and the brown change moves along the fruit peel causing it to crack.



Fig 2: Unsim worm on the stem of the plant



Fig 3: Unsim worm on the fruit

Research results: As a result of the study of pomegranate pests, pests such as Pomegranate fruit (*Euzophera punicaella* Mooze), Pomegranate juice (*Aphis punicae* Theob), Comstock worm (*Pseudococcus komstoci* Kuw), Common spider (*Tetranychus urticae* Koch) were studied.

Pomegranate sap (*Aphis unicae* Theob) is one of the most common pests of pomegranate. Comstock worm (*Pseudococcus komstoci* Kuw) was found in moderate, simple spider (*Tetranychus urticae* Koch) in rare cases (Table 1).

Table 1: Arthropods that damage pomegranates.

	Naming		Meeting rate
	In the Uzbek language	Latin	
1	Pomegranate sucking pest	<i>Aphis punicae</i> Theob.	+++
2	Pomegranate fruiter	<i>Euzophera punicaella</i> Mooze	+++
3	Comstock worm	<i>Pseudococcus komstoci</i> Kuw.	++
4	A simple spider	<i>Tetranychus urticae</i> Koch.	+
5	Chipor bronze beetle	<i>Oxythyrea cinctella</i> Schaum.	+
6	Olenka bronze beetle	<i>Epicometis turanica</i> Rtt.	+
7	Harmful head calf beetle	<i>Polypphlla odspersa</i> Mots.	+
8	March calf beetle	<i>Melolontha afflicta</i> Ball.	+
9	Comma-shaped shield	<i>Lepidosaphes ulmi</i> L.	+

Note: +++ - the most common and the damage is great
 ++ - occurs in 40-60% of trees
 + - rare

Conclusion

The results of the study suggest that pomegranate juice (*Aphis punicae* Theob), *Pseudococcus komstoci* Kuw, and similar pests are the most harmful pomegranate pests and pomegranate juice when studied in their biology.

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